City of MOUNT VERNON

RECEIVED
CITY OF MOUNT VERNON
DEC 0 8 2016
C.E.D. DEPARTMENT
BY_____

16-144

MASTER LAND USE APPLICATION FORM

FILE NUMBER: _____

PROPERTY OWNER(S):
(If there is more than one legal owner, please attach an additional notarized Master Application for each owner)

NAME:
Steve Broman

ADDRESS:
23172 Lanyard Lane

CITY/STATE: Mount Vernon, Wa. ZIP: 98274

TELEPHONE NUMBER and EMAIL ADDRESS:
(360)840-6555 steve.broman@wavecable.com

APPLICANT (if other than owner):

NAME:
Dave Prutzman

COMPANY: (If applicable) Samish Bay Land Company LLC

ADDRESS:
4215 Montgomery Place

CITY/STATE: Mount Vernon, Wa. ZIP: 98274

TELEPHONE NUMBER and EMAIL ADDRESS:
(425)308-9397 samishbay@gmail.com

CONTACT (If this section is completed, correspondence will only be sent to this individual, if left blank, materials will only be sent to the property owner):

NAME:
Dave Prutzman

ADDRESS:
4215 Montgomery Place

CITY/STATE: Mount Vernon, Wa. ZIP: 98274

TELEPHONE NUMBER and EMAIL ADDRESS:
(425)308-9397 samishbay@gmail.com

PROJECT INFORMATION

Project or development name:
~~t.b.d.~~ HILLCREST VILLAGE

Property/project address(s)/location:
1717 South 18th Street

A copy of the site legal description from either: 1) a recent title report; or 2)a description written and/or reviewed by a P.L.S., must be attached.

Skagit County Assessor's parcel number(s):
P28445

Existing land use(s):
Vacant Land

Proposed land uses:
Residential lots/homes

Existing Comprehensive Plan designation:
High Density Residential

Proposed Comprehensive Plan designation (if applicable):

Existing Zoning designation:
R-1,5.0

Proposed Zoning designation (if applicable):

Site Area (sq. ft. or acreage):
79,910 sq. ft.

Project value:
$500,000

Is the site located in any type of environmentally sensitive area?
No

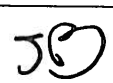
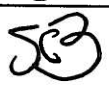
PROJECT CONTACTS

It is imperative that the members of the City Council, Planning Commission and that the Hearing Examiner know all of the people involved with your application so that they can act without any conflict of interest charges or violations of the appearance of fairness doctrine. Therefore, the following information MUST be complete and MUST be updated when new companies or individuals become involved with your project. **The following persons are associated with this project. Attach additional pages as necessary to ensure complete disclosure:**

Developers:	Address:	Phone and Email Address:
SAMISH BAY LAND CO.	4215 MONTGOMERY PL MOUNT VERNON, WA 98274	(425) 308-9397 samishbay@gmail.com
Architect:	**Address:**	**Phone and Email Address:**
N/A		
Engineer:	**Address:**	**Phone and Email Address:**
HERRIGSTAD ENGINEERING ~~4920 WHH~~	4320 Whistle Lake Rd Anacortes, WA 98221	(360) 299-8804 dale@herrigstad.com
Surveyor:	**Address:**	**Phone and Email Address:**
HERRIGSTAD ENGINEERING	SAME	SAME
Title Company:	**Address:**	**Phone and Email Address:**
CHICAGO TITLE	425 Commercial Street Mount Vernon, WA 98273	(360) 424-1700
Lender/Loan Officer:	**Address:**	**Phone and Email Address:**
N/A		
Attorney:	**Address:**	**Phone and Email Address:**
N/A		
Contractors:	**Address:**	**Phone and Email Address:**
TBD		
Real Estate Agents:	**Address:**	**Phone and Email Address:**
N/A		
Investors:	**Address:**	**Phone and Email Address:**
N/A		
Other parties providing similar, significant services:	**Address:**	**Phone and Email Address:**
N/A		

ACKNOWLEDGEMENTS

The following statements MUST be read and initialed by the property owner. Land Use applications involve many steps and processes; and most applications are conditioned through the process. The following disclosure statements involve items that the Community & Economic Development Department wishes to bring to your attention at the beginning of a project. The following statements in no way contain all of the conditions that could be applied to your project, but rather, are conditions that could seem out of the ordinary to an applicant who does not regularly work with land use codes.

OWNER'S INITIALS:	LAND USE PERMITTING DISCLOSURE STATEMENTS:
	I understand that land use permits do not authorize earth disturbing activities, the removal of vegetation, or the construction of buildings. I understand that additional permits will be required after my land use permitting process is completed. I understand that no earth disturbing activities (including the removal vegetation) may take place until after my land use process is complete, and only after I have received additional permits such as Fill & Grade, Utility, or Right-of-Way permit(s). Additionally, I understand that structures can not be constructed until after my land use permitting processes are complete and I receive a Building Permit(s).
	I understand that if critical areas (wetlands, streams, steep slopes, et cetera) are found on or near my property I will be required to leave an undisturbed buffer area around the critical area. I also understand that depending upon the size and scope of my project that I may be required to enhance a critical area buffer.
	I understand that depending upon the size and scope of my project, I may be required to provide maintenance and/or performance bonds for items such as landscaping, public roads and/or public utilities that I construct or install.
	I understand that depending on the type of critical areas on or near my property I may be required to provide both monitoring and maintenance bonds for work within a critical area buffer. I also understand that if I choose to utilize the ecosystem alternative within the City's Critical Areas Ordinance I will be required to "buy down" the buffer and to enhance the buffer areas left on my property.
	I understand that I am solely responsible for providing complete and accurate information to the City. I understand that if my application is missing information or if inaccurate materials are submitted, my land use process will be delayed. I understand that depending on how inaccurate and how incomplete my application is or becomes, the Community & Economic Development Department could require an entirely new application to be submitted. I understand that when and if conditions change from that which my application originally represented, I am responsible for letting the planner assigned to my project know.
	I understand that I am applying for permits from the City of Mount Vernon only; and that additional permits from other Federal and State agencies will likely be required. I understand that the City of Mount Vernon can not advise me of permits that are required from other agencies, and that I must contact these agencies to make sure I comply with their requirements. These agencies include (but are in no way limited to): Corps of Engineers, Department of Natural Resources, Department of Ecology, and Northwest Clean Air Agency.
	I understand that I may be required to properly and timely post a pink land use sign on my property during my land use permitting process. I understand that I am responsible for making sure that this sign continues to be posted on my property until my land use process is completed; and I understand that I am responsible for removing and disposing of this sign once my land use process is completed.
	I understand that I will be responsible for paying consultants that the City may deem necessary to review certain aspects of my application. I understand that these consultant reviews could include traffic concurrency, critical area, landscaping, et cetera.

Fee Calculations

Please note that CEDD staff uses this area to calculate the application fees for all submittals.

Annexation	$_____
Binding Site Plan	$_____
Boundary Line Adjustment	$_____
Comprehensive Plan Amendment	$_____
Conditional Use Permit, Administrative	$_____
Conditional Use Permit	$_____
Critical Area Permit	$_____
Design Review	$_____
Environmental Review (SEPA)	$_____
Environmental Review with critical areas	$_____
Fill and Grade Permit	$_____
Landscape Modifications	$_____
Major Modification	$_____
Master Plan	$_____
Non-Conforming	$_____
Other Permit Write in Below:	$_____

Plat, Preliminary	$_____
Planned Unit Development	$_____
Rezones	$_____
Shoreline Permits:	
Conditional Use	$_____
Substantial Development	$_____
Variance	$_____
Short Plat, Preliminary	$_____
Site Plan Approval	$_____
Special Use Permit	$_____
Special Use Permit for ADU	$_____
Temporary Use Permit	$_____
Transportation Concurrency	$_____
Variances, Administrative	$_____
Variances	$_____
Postage	$_____
Land Use Signs:	$_____

AFFIDAVIT OF OWNERSHIP

Only the property owner or an authorized representative may sign this form. If your title report lists a company, partnership or other owners you must submit evidence that you are authorized to sign on behalf of the entity or others that are listed. If you are an authorized representative you must provide a signed and notarized statement from the property owner(s) that you are authorized to sign on their behalf. Please attached additional signature sheets if there are more than one owner.

I, STEVE BROMAN, declare that I am (please check one) X the owner of the property involved in this application, _____ the authorized representative to act for the property owner (proof of authorization must be attached), and that the statements and answers herein contained and the infroamtion herewith submitted are in all respects true and correct to the best of my knowledge and belief.

Applicant Signature: Steve Broman

On this, the 12TH day of SEPTEMBER, 2016 before me personally appeared _____ known to me to be the same person whose name is subscribed to the within instrument and acknowledged that he/she voluntarily executed the same for the purpose therein contained.

NOTARY PUBLIC
STATE OF WASHINGTON
JESSICA MASSINGALE
My Appointment Expires
JANUARY 01, 2019

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Jessica Massingale
Notary Public in and for the State of Washington
Residing at Skagit County
My Appointment Expires January 1st, 2019

Chicago Title Insurance Company

Address: 1717 South 18th Street, Mount Vernon WA 98274 P28445

Legal Description:

Part of the East ½ of the Southwest ¼ of the Northeast ¼ of Section 29, Township 34 North, Range 4 East, W.M., described as follows:

Beginning 1,318.50 feet East and 808.30 feet North of the center of said Section; thence West 661.51 feet; thence South 131.00 feet; thence East 661.15 feet; thence North 131.00 feet to the place of beginning, EXCEPT road right-of-way on East, commonly known as 18th Street; and ALSO EXCEPT any portion thereof lying within the boundaries of 16th Street running along the West line thereof.

16-144

This legal description is taken from the last deed of record

QUIT CLAIM DEED AF# 200705250234

16-144

Broman Short Plat

Request for Waiver of Requirements, Chapters 16.20 Improvements

Referenced Chapter 16.20 requires improvements in the following areas:

Sub-paragraph F. Sidewalks. 1. Sidewalks shall be installed on both sides of each street. ..... These requirements can be waived through a modification process per MVMC **16.16.035.**

Our request is for waiver of requirement to install curb, gutter and sidewalk across project frontage on east side of 16th Street and west side of 18th Street.

Existing Situation: 16th Street. There are no curb, gutters or sidewalks on the east side of 16th Street between Blackburn Road on the south and Fowler Street on the north (see attached photo exhibits). This is a distance of approximately 1,400 l.f.. 12 homes currently front on, and access off, the east side of 16th Street within that distance.

We feel that insertion of curb/sidewalk into the middle of such a lengthy expanse would create a 100 l.f. island of curb/sidewalk, would serve no safety purpose since the west side of 16th Street has sidewalk its' entire length, and could actually create safety issues and become a hazard.

It is apparent that only a broader based approach such as an LID or other City measure will result in full improvements the length of the east side of 16th Street. None of the homes fronting the east side of 16th Street have development potential beyond being a single home on an existing lot. We would propose a non-opposition agreement with the City when such an issue is brought forward.

Additionally, we would propose installation of required street trees between back of right of way and screening to be installed around our storm pond.

Existing Situation: 18th Street: 18th Street presents a similar situation to 16th Street in that there are no improvements on the west side of 18th Street from Blackburn Road to Fowler Street, a distance of approximately 800 l.f.. The west side of 18th Street is fronted by small single family homes that offer no likelihood of development except for the proposed Lot 8 of this project. Again, the most feasible way for improving the west side of 18th Street is via an LID or other City led action.

We would propose a similar non-opposition agreement with the City with the caveat that should Lot 8 ever be further developed the frontages of South 18th Street and Hillcrest Parkway will be fully improved with any access coming off Hillcrest Parkway.

Additional Existing Situation/Proposal for Pedestrian Crosswalks: Currently there are no east/west pedestrian crosswalks between Blackburn Road on the south and Section Street on the north, and between 13th Street on the west and 18th Street on the east. This leaves a large area without direct, shortest route safewalking path to Jefferson Elementary.

We propose adding crosswalks at 16th Street/Hillcrest Parkway on the north side of the intersection and on 18th Street at the end of our pedestrian pathway (see attached photo exhibits). This will provide a safe walking path for those areas west of 16th Street.

Sincerely,

David Prutzman
Managing Member
Samish Bay Land Company LLC

Chapter 16.20
IMPROVEMENTS

Sections:

16.20.010 General improvements.

The following improvements shall be constructed and/or installed prior to final plat, short plat or binding site plan approval:

A. Watermains.

1. A water distribution system, including fire hydrants, to provide domestic water service and fire protection to each lot. Said system shall conform to the Skagit County Public Utility District No. One's Master Distribution Plan and requirements;

2. Fire hydrant type and location shall be subject to the review and approval of the fire department.

B. Sanitary Sewers.

1. Sewer mains shall be installed by the subdivider or his contractor as shown on drawings approved by the city engineer. When required, sewer mains, manholes, lift stations and force mains shall be installed in all subdivisions prior to any water service being connected to any improvements;

2. Each and every building in which people live, congregate or are employed, shall have a separate connection to the public sewer;

3. Side sewers shall be extended 10 feet into the lot, plugged and marked;

4. Sewer lines shall be extended to the boundary of the plat at the direction of the public works director.

C. Drainage.

1. All drainage in and through the subdivision shall be the responsibility of the subdivider;

2. The subdivider may divert or enclose the natural drainage in his subdivision after providing a drainage system approved by the city engineer, so long as the natural drainage is not subject to the city's critical areas ordinance. The subdivider shall bear all costs associated with diverting or closing natural drainage;

3. All drainage in rights-of-way must be in underground pipes and culverts except where permitted in gutters;

4. Drainage design and construction shall be similar to sewer requirements;

5. Where required, the subdivide[illegible]all design and install storm drain retentic[illegible] detention systems and water quality facilities;

6. Positive drainage shall be provided to each lot. Where three-inch diameter sidewalk lot drains cannot be provided, a service drain from the storm drain shall be extended to the lot;

7. Drainage lines shall be extended to the boundary of the plat at the direction of the public works director.

D. Streets.

1. All streets and alleys shall have all trees and brush removed from the right-of-way;

2. All streets and alleys shall be grubbed by the removal of all large rocks, roots, snags, logs, brush, etc., upon the surface of the ground and refilling all excavations and holes left by the removal within the confines of the street;

3. Paved streets, curbs, gutters and sidewalks shall be required on all dedicated street rights-of-way in all subdivisions. All improvements shall be constructed in conformance with the street and utility standards and shall be made from intersection to intersection, intersection to subdivision boundary, or from subdivision boundary to subdivision boundary;

4. On streets where a proposed subdivision adjoins an existing subdivision or existing street dedication in midblock and the existing subdivision or existing street dedication is unpaved, the subdivider shall, at a minimum, be responsible for installing curbs, gutters and sidewalks on that portion of the street right-of-way within the proposed subdivision;

5. Monuments with cases shall be placed at all street intersections, boundary angle points or curves in streets, and at such intermediate points as required by the city engineer.

E. Alleys. Alleys adjacent to properties zoned for all uses shall be paved.

F. Sidewalks.

1. Sidewalks shall be installed on both sides of each street. Sidewalks shall be required along dead-end streets and around cul-de-sacs. These requirements can be waived through a modification process per MVMC **16.16.035**;

2. The subdivider and/or developer shall determine the location of all driveway entrances prior to approval of construction plans. Driveway entrances shall be placed in a manner such that on-street parking, if allowed, is maximized. Driveway indentations shall be made at the same time the sidewalks are constructed;

3. Sidewalks shall be constructed so as to avoid physical obstructions such as poles, vaults and fire hydrants. Sidewalks shall be constructed so as to avoid placement over water, gas, sewer and other utility lines;

4. All sidewalks shall be completed prior to an occupancy permit being granted for any new building;

5. When sidewalks are approved as integral with the curb, the sidewalk shall be a minimum of five and one-half feet wide (not including curb width).

G. Other Utilities.

1. Street light standards and/or [illegible]res shall be provided to supply adequate [illegible]ting for the safety and convenience of the public;

2. Other utilities shall be installed to provide electricity, natural gas, telephone, television cable and other services to the platted area;

Said utilities shall be restricted to underground installation unless otherwise approved by the city engineer;

3. All utilities (water, sewer, electrical, gas and cable) shall be installed to the property line prior to acceptance of the public improvements.

H. Traffic-Control Devices. The subdivider shall install street name signs and traffic-control signs and/or improvements and devices to the satisfaction of the city engineer. The city may install such signs and devices at the expense of the subdivider. (Ord. 3428 § 53, 2008).

16.20.020 Waiver of requirements – Procedure.

A. Any subdivider can make application to the community and economic development department for a waiver of any provision contained in this title provided the request is received concurrently with the proposed subdivision or dedication for plats in which the hearing examiner makes a recommendation and the city council makes a final decision. Such application shall include any and all details necessary to support the application. All waiver requests must be forwarded to the city council with the preliminary plat and the hearing examiner's recommendation. The council may establish a fee for submitting such a request. A favorable recommendation for the granting of such waivers is discretionary on the part of the hearing examiner.

B. The hearing examiner shall not recommend approval of a waiver of the subdivision regulations unless he/she shall find that the following conditions exist in each case of a request: where, because of the size of the tract to be subdivided, unusual shapes, topography, unusual topographic conditions, unusual geological conditions, the condition or nature of adjoining areas, or the existence of unusual physical conditions, strict compliance with the provisions of this title would cause unusual and unnecessary hardship on the subdivider, or would result in an undesirable plat, the hearing examiner may vary the requirements set forth in this title.

C. In recommending or supporting waivers, the hearing examiner may require such conditions as will achieve, insofar as practicable, the objectives of the requirement waived. Any waiver authorized shall be entered as a finding of fact in the hearing examiner's recommendation together with the circumstances that justify the waiver granted. (Ord. 3428 § 54, 2008).

Gmail

Dave Prutzman <samishbay@gmail.com>

RE: 16th Street Short Plat

message

Chesterfield, Ana <anac@mountvernonwa.gov> Tue, Sep 20, 2016 at 10:17 AM
To: "Lowell, Rebecca" <rebeccab@mountvernonwa.gov>, Dave Prutzman <samishbay@gmail.com>
Cc: "Marianne Manville-Ailles (mma@sseconsultants.com)" <mma@sseconsultants.com>

Good morning Dave,

We have spoken many times on this project and I want to make sure I clarify a few items. And of course as you know, some of your proposed layout came out of our conversations. Rebecca and I have spoken about the project and have looked at what you submitted and so her comments are a collaboration in between Planning and Engineering.

1. **Regarding the improvements on 16th Street**, as I had said before in some of our conversations, these are required and the decision of the level of improvements would be based on the traffic concurrency for the project. The project can apply for a deviation and I will be then reviewing for both Public Works and Development Services based on the criteria set forth in MVMC.

2. **Likewise the improvements on 18th Street** will also be based on the Traffic Concurrency analysis. The site will have no vehicular access to 18th Street which your site plan showed. However, as you and I spoke about, the project is offset from an existing school so I will be looking at pedestrian access to and from.

3. **In reference to the ROW street section** – the Public Works Director has not approved nor denied the proposed street section. I have briefly spoken with Esco about this sometime ago when you had proposed to make it a private road via a ROW vacation. The 42' street section meets the purposes of the Subdivision code and I am comfortable moving forward with that layout.

4. In regards to storm water, road asphalt sections, location of utilities, street lighting... – these items will be reviewed and approved during plan review. Detention and water quality are required for the project as well as engineering road design and utility design.

I hope my email clarifies some of your questions but feel free to contact me if you need additional clarification. Please be sure to reply all to avoid confusion and minimize emails.

Sincerely,

Ana Chesterfield

Development Services Engineering Manager

Community and Economic Development Department

City of Mount Vernon

Google Maps 1786 S 16th St VIEW OF SITE

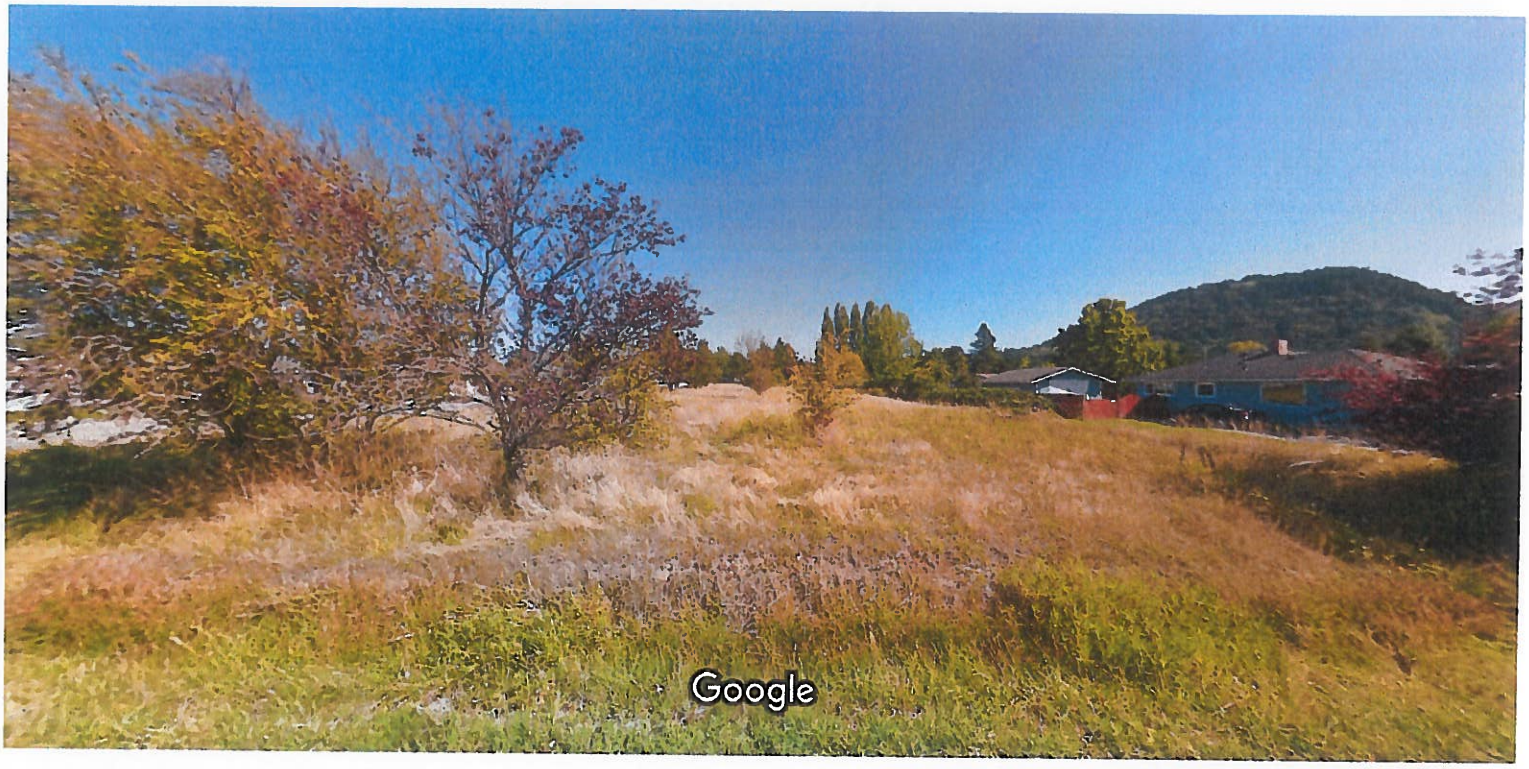
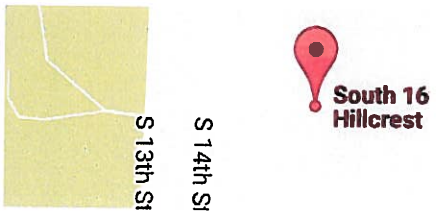


Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

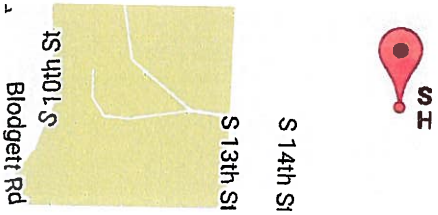


Google Maps 1801 S 16th St LOOKING NORTH ACROSS SITE

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

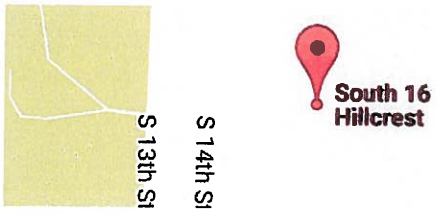


Google Maps 1778 S 16th St LOOKING NORTH FROM SITE

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

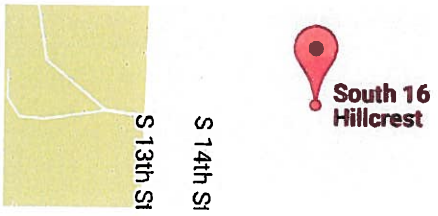


Google Maps 1786 S 16th St LOOKING SOUTH ACROSS SITE

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

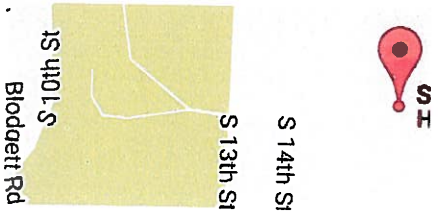


Google Maps 1801 S 16th St LOOKING SOUTH FROM SITE

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015



Google Maps 1734 S 18th St LOOKING SOUTH ACROSS SITE

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

Google Maps 1750 S 18th St LOOKING EAST FROM PEDESTRIAN PATHWAY

Image capture: Sep 2015 © 2016 Google

Mt Vernon, Washington

Street View - Sep 2015

[redacted]

SEPA ENVIRONMENTAL CHECKLIST

16-144

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

***Instructions for applicants*:**

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. BACKGROUND

1. Name of proposed project, if applicable: **Broman Short Plat**

2. Name of applicant: **Samish Bay Land Company LLC**

3. Address and phone number of applicant and contact person: 4215 Montgomery Place Mount Vernon (425)308-9397 Contact Person: **Dave Prutzman**

4. Date checklist prepared: **9/30/2016**

5. Agency requesting checklist: **City of Mount Vernon**

6. Proposed timing or schedule (including phasing, if applicable): **Spring 2017**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. **No**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **None**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **No**

10. List any government approvals or permits that will be needed for your proposal, if known. **Short Plat approval, Clear Grade Permit, Construction Permit**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) **Subdivide 1.7 acres into 7 single family residential lots, 1 existing house and lot, and 1 storm water tract via the short plat process.**

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. **1717 South 18th Street, Mount Vernon. Between South 18th Street and South 16th Street.**

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site
(circle one): **Flat**, rolling, hilly, steep slopes, mountainous,
other **Gently Sloped**

b. What is the steepest slope on the site (approximate percent slope)? **2%**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. **Bow Urban Land Complex, Hydrologic Group C/D. Loam, gravel, clay.**

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. **No**

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. **20,000 s.f. of road area, 3,200 s.f. sidewalks for approximately 1,300 c.y. excavation. 400 c.y. pond excavation. Total excavation 1,700 c.y. 600 c.y. of pit run fill will be imported.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **No**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? **29%**

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: **Temporary erosion control, water quality, detention.**

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. **Vehicle emission during construction.**

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. **No**

c. Proposed measures to reduce or control emissions or other impacts to air, if any: **Construction equipment will be maintained to appropriate levels to minimize emissions.**

3. **Water**

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. **No**

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. **No**

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. **None**

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. **No**

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. **No**

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. **No**

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. **No**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. **None**

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. **Roofs, driveways, streets, sidewalks. Water will be collected into on site storm system, concentrated in a storm pond tract, and conveyed to the City's storm water system which is in 16th Street.**

2) Could waste materials enter ground or surface waters? If so, generally describe. **No**

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. **No**

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: **Installation of storm water system through the project involving roof drains, yard drains, street drains, catch basins, water quality and detention.**

4. **Plants**

a. Check the types of vegetation found on the site:

__x__**deciduous tree: alder,** maple, aspen, other
__x__**evergreen tree: fir**, cedar, **pine**, other
____shrubs
__x__**grass**
__x__**pasture**
____crop or grain
____ Orchards, vineyards or other permanent crops.
____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered? **Grasses, 3 small evergreen trees likely to be removed.**

c. List threatened and endangered species known to be on or near the site. **None**

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **Residential landscaping of trees, shrubs, grasses, mulches.**

e. List all noxious weeds and invasive species known to be on or near the site. **None**

5. **Animals**

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: **hawk**, heron, eagle, **songbirds**, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site. **None**

c. Is the site part of a migration route? If so, explain. **No**

d. Proposed measures to preserve or enhance wildlife, if any: **None**

e. List any invasive animal species known to be on or near the site. **None**

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. **Electric and natural gas will be used for heating, cooking and lighting.**

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. **No**

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: **High efficiency natural gas and windows and insulation.**

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. **No**

1) Describe any known or possible contamination at the site from present or past uses. **None**

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. **None**

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. **None**

4) Describe special emergency services that might be required. **None**

5) Proposed measures to reduce or control environmental health hazards, if any: **None**

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? **None**

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. **Traffic, construction operation 7:00 a.m. – 6:00 p.m.**

3) Proposed measures to reduce or control noise impacts, if any: **None**

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. Current use is one single family home and grass pasture. **Project will not affect adjacent properties.**

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? **No**

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: **No**

c. Describe any structures on the site. **Existing residence and garage 1717 South 18th Street.**

d. Will any structures be demolished? If so, what? **No**

e. What is the current zoning classification of the site? **R-1,5.0**

f. What is the current comprehensive plan designation of the site? **High Density Residential**

g. If applicable, what is the current shoreline master program designation of the site? **N/A**

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. **No**

i. Approximately how many people would reside or work in the completed project? **10-15**

j. Approximately how many people would the completed project displace? **-0-**

k. Proposed measures to avoid or reduce displacement impacts, if any: **None**

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **Single family homes compatible with adjacent neighborhoods.**

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: **N/A**

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **7 middle income homes.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **None**

c. Proposed measures to reduce or control housing impacts, if any: **Possible CCR's to be adopted.**

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? **35'. Wood, cement plank siding, composition roofs.**

b. What views in the immediate vicinity would be altered or obstructed? **View of existing vacant field will be eliminated.**

c. Proposed measures to reduce or control aesthetic impacts, if any: **Housing Design Standards.**

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Light from homes and streetlight.**

b. Could light or glare from the finished project be a safety hazard or interfere with views? **No**

c. What existing off-site sources of light or glare may affect your proposal? **No.**

d. Proposed measures to reduce or control light and glare impacts, if any:**None**

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity? **Hillcrest Park, Jefferson Elementary playfields, Little Mountain Park.**

b. Would the proposed project displace any existing recreational uses? If so, describe. **No**

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **Pedestrian pathway to 18th Street/Jefferson Elementary playfields.**

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. **There are no buildings, structures or sites identified on the WISSARD at the DAHP web site in the vicinity of this project.**

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. **No evidence to date show Indian or historic use or occupation.**

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. **EZ1 request submitted to DAHP on October 1, 2016. See attached email thread from Gretchen Kaehler: "We have no specific concerns for this project."**

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. **Should archaeological materials (e.g. bones, shell, stone tools, beads, ceramics, old bottles, hearths, etc.) or human remains be observed during project activities, all work in the immediate vicinity should stop. The State Department of Archaeology and Historic Preservation (360-586-3065), the County/City planning offices, the affected Tribe(s) and the county coroner (if applicable) should be contacted immediately in order to help assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (RCW27.53,27.44 and WAC 25-48) is required. Failure to comply with this requirement could constitute a Class C Felony.**

14. **Transportation**

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. **Hillcrest Parkway extended, South 16th and South 18th Streets.**

Department of Archaeology and Historic Preservation (DAHP)

P: 360-586-3088

C: 360-628-2755

From: Dave Prutzman [mailto:samishbay@gmail.com]
Sent: Monday, November 21, 2016 1:06 PM
To: Kaehler, Gretchen (DAHP)
Subject: Re: EZ-1 form

Thanks for your reply..... the City tells me they need a "letter" from DAHP before they will accept our short plat application. How do I go about securing such?

On Mon, Nov 21, 2016 at 12:20 PM, Kaehler, Gretchen (DAHP) <Gretchen.Kaehler@dahp.wa.gov> wrote:

HI Dave,

We have no specific concerns for this project. We have attached a Skagit County Inadvertent Discovery Plan for your use.

Best,

Gretchen

Gretchen Kaehler

Assistant State Archaeologist, Local Governments

Department of Archaeology and Historic Preservation (DAHP)

P: 360-586-3088

C: 360-628-2755

From: Dave Prutzman [mailto:samishbay@gmail.com]
Sent: Monday, November 21, 2016 12:00 PM

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? **Yes, on South 18th Street approximately 300' from the site.**

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? **Provide 17-21, eliminate -0-.**

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). **New streets, sidewalks, pedestrian pathway, crosswalks.**

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. **No.**

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? **T.B.D., no truck traffic anticipated.**

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. **No**

h. Proposed measures to reduce or control transportation impacts, if any: **None**

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. **Increased public services required for 7 new homes.**

b. Proposed measures to reduce or control direct impacts on public services, if any. **Payment of impact fees.**

16. **Utilities**

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other **installation of conduit for future connection to City's fibre optic system**

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. **Electricity: PSE, Natural Gas: CNGC, Refuse: City of Mount Vernon, Telephone: Frontier, Cable: Comcast, Water: Skagit PUD #1, Sanitary Sewer: City of Mount Vernon. Construction on-site will be required for installation of utilities.**

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision. Under penalty of perjury I swear that all information provided is true and correct.

Signature: _____

Name of signee: **David Prutzman**

Position and Agency/Organization: **Managing Member, Samish Bay Land Company LLC**

Date Submitted: 11/30/16

D. **SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS** [help]

(**IT IS NOT NECESSARY** to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

HERRIGSTAD ENGINEERING PS
Civil Engineering & Surveying
4320 Whistle Lake Road
Anacortes, WA 98221
Dale Herrigstad, P.E., P.L.S.
(360) 299-8804

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BY_____

BROMAN SHORT PLAT
1717 SOUTH 18TH STREET
MOUNT VERNON
DRAINAGE ANALYSIS

October 24, 2016
Job # 2016-56

Prepared By:
Dale K. Herrigstad P.E.

10-25-2016

Client/Owner:
Samish Bay Land Company
Mount Vernon, WA 98273

The stormwater plan will be based on the requirements of the 2005 DOE Stormwater Management Manual for Western Washington, as required by the City of Mount Vernon Drainage Ordinance.

TABLE OF CONTENTS

PROJECT DESCRIPTION:

The project is to develop 8 building lots on a 1.84 acres parcel plus 0.42 acres of right-of-way for a total of 2.26 acres between South 18th Street and South 16th Street being addressed at 1717 South 18th Street. The site is in the middle of a residential area being one of the few large parcels undeveloped. A detention and water quality pond tract will be set aside on the western boundary of the site. A 32 foot side road from back of curb to back of curb with a 5 foot side walk will be constructed along the existing undeveloped Hillcrest Parkway right-of way along the southern portion of the parcel. **See Attachment A.**

EXISTING CONDITIONS:

The property slopes down from east to west with South 16th Street at the low side of the property. The eastern lots will have a cross slope of approximately 4% while the downhill 3 lots have a cross slope of about 1%. The property has an existing residential house on the eastern end of the property abutting South 18th Street and will remain undisturbed except for the road connector passing through the right-of-way along the south boundary. The site is pasture grass with blackberry brush in the southeast corner and a few small trees in the field. The larger trees around the existing house will remain

undisturbed. The site has been pasture since before 1937 as shown in Skagit County aerial photos. An existing swale runs along the north property line that apparently only collects water from one parcel abutting South 18th Street through an existing 3" storm pipe discharging to the swale. Four other existing parcels were part of a short plat that included as access road that intercepts all off site discharge before reaching this property. An existing swale also runs along the southern portion of the Hillcrest Parkway right-of-way collecting runoff from this property before reaching the southern offsite parcels and conveying the flow to an existing drainage system in the southwest corner of the site at South 16th Street. An existing enclosed drainage system conveys storm water from this site down South 16th Street to the South. **See attachment B.**

DOE Stormwater Management Manual Minimum requirements:

According to the 2005 DOE manual figure 2.2, page 2-9:

Does the site have 35% or more of existing impervious coverage – No
Does the site add 5000 square feet of new impervious surfaces – Yes
Does the site ¾ acres or more of native vegetation to lawn – No
Does the project have 2,000 square feet of new impervious surfaces – Yes

All Minimum requirements apply to this project. This report will work through each of the 10 requirements below.

Minimum Requirement #1: Prepare a Stormwater Site Plan.

Volume 1, Chapter 3 steps (page 3-1).

Step 1. Collect and Analyze Information on Existing Conditions.
The current site is pasture with little offsite properties draining onto this site.

2. Prepare a Preliminary Development Layout.
A proposed layout is attached as **attachment A**.

3. Perform an offsite analysis:
Offsite flow from comes from one lot northeast of this parcel. This flow will be captured and routed through a pipe to South 16th Street and bypass the storm drainage on this site.

4. Determine and Read Applicable Minimum Requirements.
The applicable minimum requirements 1 through 10 are applicable to this project.

5. Prepare a Permanent Stormwater Control Plan
Referring to Chapter 4 and determine threshold discharge areas and applicable requirements for treatment and flow control.

First, determine the amount of effective Pollution-generating impervious surfaces (PGIS) and Pollution-generating pervious surface (PGPS) to determine treatment requirements.

Threshold Discharge areas:

New PGIS road and driveway area = 0.40 acres.

PGIS = 17,943 SF > 5000 SF
PGPS = 0.41 acres < ¾ acres

From table 2.1, section 2.5.6, page 2-27; Minimum treatment #6: Runoff treatment

Treatment facilities are required and on site Stormwater BMPs are required.

Second, determine the amount of effective impervious surfaces and converted pervious surfaces.

Threshold Discharge areas table 2.2 Flow Control Requirements by Threshold Discharge Area:

Total impervious area = 47,000 sf (1.08 acres)> 10,000 SF

Storm water detention is required.

Step 6. Prepare a Construction Stormwater Pollution Prevention Plan. See minimum requirement #2 below for SWPP.

Step 7. Complete a Stormwater Site Plan: The project overview has been provided at the beginning of this report along with an existing conditions description. Maps are included in the attachments. Soil maps are provided in the attachments. Offsite analysis is provided in section step 3 above.

Step 8. Check compliance with all applicable minimum requirements: To take place during and after construction.

Minimum Requirement #2: Construction Stormwater Pollution Prevention (SWPP)

This project must meet the 12 elements of a SWPP because the site exceeds the threshold of 2,000 square feet of new impervious surfacing.

1. Mark Clearing limits: An existing fence delineates the southern and northeast boundary with a road along the north and west boundaries. An orange construction fence will be installed along the remaining boundaries to identify the construction limits as well as clearing limits.
2. Establish Construction Access: The construction entrance will be established at the proposed entry to the site at South 16th Street.
3. Control Flow Rates: The detention pond in Tract A will be constructed to control offsite flow rates.
4. Install Sediment controls: The detention pond will be constructed as a first step in construction and act as a sediment trap during construction.
5. Stabilized Soils: Every effort will be made to no disturb existing grass outside the area of the proposed road and detention pond to limit disturbed soils. Seeding and hydro seeding will be used on disturbed areas not converted to impervious areas.
6. Protect Slopes: There are no steep slopes on this project. Maximum slope is 4%.
7. Protect Drain Inlets: New catch basins will equipped with filter traps until the site is paved and stabilized. Offsite catch basins filter traps will be installed along South 16th Street as neccessary.
8. Stabilize Channels and Outlets: The open channels the now existing along the south side of the will be removed. The northern swale will eventually be replaced with a storm drain. The swale along the western boundary and South

16th Street will remain with a new outlet constructed and protected with filter dams.

9. Control Pollutants: Applicable notes are included on construction drawing.
10. Control De-Watering: De-watering of excavation trenches will be pumped to the temporary sedimentation pond.
11. Maintain BMPs: Applicable notes are included on construction drawing.
12. Manage the Project: Applicable notes are included on construction drawing.

Minimum Requirement #3: Source Control of Pollution

The site is flat and minimal erosion will occur. The detention pond will act as the sedimentation pond and require additional excavation prior to final stabilization of the site.

Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls

The existing site drains to the southwest to South 16th Street and an existing drainage system that drains south in South 16th Street. The storm drainage system in South 16th Street is a 36" concrete storm drainage system to Blackburn Road about 670 feet.

Minimum Requirement #5: On-site Stormwater Management

The site soils for this project are poorly draining hydrologic group D. All impervious areas will be directed to the detention/wetpool pond in Tract A.

Minimum Requirement #6: Runoff Treatment

Treatment will be provided with a wetpool combined with the detention pond.

Minimum Requirement #7: Flow Control

Flow control will be provided with the use of a detention pond combined with a wetpool. The design parameters and pond design area shown below. See the attached WWHM report below.

Minimum Requirement #8: Wetland Protection

There are no wetlands within 800 feet of this site being in the middle of urban development.

Minimum Requirement #9: Basin/Watershed Planning

All discharge will be limited to the pre-developed flow to the down stream enclosed system.

Minimum Requirement #10: Operation and Maintenance

See the operation and maintenance schedules attached.

FLOW CONTROL DESIGN

Flow volume are determined using the Western Washington Hydrograph Modal WWHM3. Soils for the 2.26 acres are classified as Bow Urban Land Complex, hydrologic group D. The site area includes the 1.84 acre Broman property and the 0.42 acres of Hillcrest right-of-way for a total of 2.26 acres. The pre-existing conditions will be pasture which has been the same for as far back as 1937 according to Skagit County aerial photos.

The following developed areas are used for the pond design.

Road area = 17,943 square feet (0.41 acres)
Sidewalk = 3,143 square feet (0.07 acres)
Driveways = 5,200 square feet (0.12 acres)
Roofs 8 x 2,500 = 20,000 square feet (0.46 acres)
Sidewalks and patios/decks = 2,630 square feet (0.07 acres)

Total impervious area = 1.13 acres

Total pervious area = 1.13 acres of grass lawn/landscaping.

See the Western Washington Hydrologic Model results beginning on page 7.

WATER QUALITY TREATMENT DESIGN

Water quality will be provided for with a wet pool located below the detention pond. The volume of the wet pool will be equal to the water quality storm event of 0.137 acre-feet = 5,968 cubic feet. The bottom pond area is a 6,851 square feet so the pond depth is a minimum of 3' with an additional 6" for sediment storage the pond bottom will be 3.5 feet below the detention pond. The side slopes of the wet pool will be 3:1 from the pond bottom. Berms will be placed to maximize the flow distance for water quality treatment.

CONCLUSION:

The detention pond will be designed with a minimum bottom area of 6,851 square feet and vertical side slopes for a depth of 4.6 feet. An additional 3.5 feet below the outlet will be used for a water quality wet pool and sediment storage. The pond will be fenced.

Western Washington Hydrology Model
PROJECT REPORT

Project Name: broman vertical
Site Address: 1717 S 18th Street
City : Mount Vernon
Report Date : 10/18/2016
Gage : Burlington
Data Start : 1948/10/01
Data End : 1999/09/30
Precip Scale: 1.00
WWHM3 Version:

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	Acres
SAT, Pasture, Flat	2.26

Impervious Land Use	Acres

Element Flows To:

Surface	Interflow	Groundwater

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	Acres
SAT, Lawn, Flat	1.13

Impervious Land Use	Acres
ROADS FLAT	0.41
ROOF TOPS FLAT	0.46
DRIVEWAYS FLAT	0.12
SIDEWALKS FLAT	0.14

Element Flows To:

Surface	Interflow	Groundwater
Trapezoidal Pond 1,	Trapezoidal Pond 1,	

Name : Trapezoidal Pond 1
Bottom Length: 113ft.
Bottom Width: 60.63ft.
Depth : 5.6ft.
Volume at riser head : 0.7242ft.
Side slope 1: 0 To 1
Side slope 2: 0 To 1
Side slope 3: 0 To 1
Side slope 4: 0 To 1
Discharge Structure
Riser Height: 4.6 ft.
Riser Diameter: 18 in.
NotchType : Rectangular
Notch Width : 0.149 ft.
Notch Height: 0.736 ft.
Orifice 1 Diameter: 0.568 in. **Elevation:** 0 ft.

Element Flows To:
Outlet 1 **Outlet 2**

Pond Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.157	0.000	0.000	0.000
0.062	0.157	0.010	0.002	0.000
0.124	0.157	0.020	0.003	0.000
0.187	0.157	0.029	0.004	0.000
0.249	0.157	0.039	0.004	0.000
0.311	0.157	0.049	0.005	0.000
0.373	0.157	0.059	0.005	0.000
0.436	0.157	0.069	0.006	0.000
0.498	0.157	0.078	0.006	0.000
0.560	0.157	0.088	0.006	0.000
0.622	0.157	0.098	0.007	0.000
0.684	0.157	0.108	0.007	0.000
0.747	0.157	0.117	0.007	0.000
0.809	0.157	0.127	0.008	0.000
0.871	0.157	0.137	0.008	0.000
0.933	0.157	0.147	0.008	0.000
0.996	0.157	0.157	0.008	0.000
1.058	0.157	0.166	0.009	0.000
1.120	0.157	0.176	0.009	0.000
1.182	0.157	0.186	0.009	0.000
1.244	0.157	0.196	0.009	0.000
1.307	0.157	0.206	0.010	0.000
1.369	0.157	0.215	0.010	0.000
1.431	0.157	0.225	0.010	0.000
1.493	0.157	0.235	0.010	0.000
1.556	0.157	0.245	0.011	0.000
1.618	0.157	0.254	0.011	0.000
1.680	0.157	0.264	0.011	0.000
1.742	0.157	0.274	0.011	0.000
1.804	0.157	0.284	0.011	0.000
1.867	0.157	0.294	0.012	0.000

1.929	0.157	0.303	0.012	0.000
1.991	0.157	0.313	0.012	0.000
2.053	0.157	0.323	0.012	0.000
2.116	0.157	0.333	0.012	0.000
2.178	0.157	0.343	0.013	0.000
2.240	0.157	0.352	0.013	0.000
2.302	0.157	0.362	0.013	0.000
2.364	0.157	0.372	0.013	0.000
2.427	0.157	0.382	0.013	0.000
2.489	0.157	0.391	0.013	0.000
2.551	0.157	0.401	0.014	0.000
2.613	0.157	0.411	0.014	0.000
2.676	0.157	0.421	0.014	0.000
2.738	0.157	0.431	0.014	0.000
2.800	0.157	0.440	0.014	0.000
2.862	0.157	0.450	0.014	0.000
2.924	0.157	0.460	0.014	0.000
2.987	0.157	0.470	0.015	0.000
3.049	0.157	0.480	0.015	0.000
3.111	0.157	0.489	0.015	0.000
3.173	0.157	0.499	0.015	0.000
3.236	0.157	0.509	0.015	0.000
3.298	0.157	0.519	0.015	0.000
3.360	0.157	0.528	0.016	0.000
3.422	0.157	0.538	0.016	0.000
3.484	0.157	0.548	0.016	0.000
3.547	0.157	0.558	0.016	0.000
3.609	0.157	0.568	0.016	0.000
3.671	0.157	0.577	0.016	0.000
3.733	0.157	0.587	0.016	0.000
3.796	0.157	0.597	0.017	0.000
3.858	0.157	0.607	0.017	0.000
3.920	0.157	0.617	0.023	0.000
3.982	0.157	0.626	0.037	0.000
4.044	0.157	0.636	0.054	0.000
4.107	0.157	0.646	0.074	0.000
4.169	0.157	0.656	0.096	0.000
4.231	0.157	0.665	0.120	0.000
4.293	0.157	0.675	0.145	0.000
4.356	0.157	0.685	0.172	0.000
4.418	0.157	0.695	0.200	0.000
4.480	0.157	0.705	0.229	0.000
4.542	0.157	0.714	0.258	0.000
4.604	0.157	0.724	0.290	0.000
4.667	0.157	0.734	0.537	0.000
4.729	0.157	0.744	0.962	0.000
4.791	0.157	0.754	1.507	0.000
4.853	0.157	0.763	2.149	0.000
4.916	0.157	0.773	2.876	0.000
4.978	0.157	0.783	3.678	0.000
5.040	0.157	0.793	4.550	0.000
5.102	0.157	0.802	5.486	0.000
5.164	0.157	0.812	6.482	0.000
5.227	0.157	0.822	7.534	0.000
5.289	0.157	0.832	8.640	0.000
5.351	0.157	0.842	9.797	0.000
5.413	0.157	0.851	11.00	0.000

5.476	0.157	0.861	12.26	0.000
5.538	0.157	0.871	13.55	0.000
5.600	0.157	0.881	14.90	0.000
5.662	0.157	0.891	16.28	0.000

MITIGATED LAND USE

ANALYSIS RESULTS

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.033524
5 year	0.11984
10 year	0.213359
25 year	0.370347
50 year	0.511465
100 year	0.669279

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0.012989
5 year	0.02769
10 year	0.043231
25 year	0.072284
50 year	0.102985
100 year	0.143725

Yearly Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1950	0.201	0.015
1951	0.080	0.016
1952	0.082	0.015
1953	0.026	0.011
1954	0.001	0.012
1955	0.038	0.012
1956	0.036	0.010
1957	0.033	0.011
1958	0.090	0.014
1959	0.008	0.009
1960	0.139	0.015
1961	0.094	0.014
1962	0.027	0.012
1963	0.001	0.010
1964	0.006	0.008
1965	0.090	0.010
1966	0.159	0.016
1967	0.017	0.009
1968	0.027	0.011
1969	0.053	0.013
1970	0.035	0.011
1971	0.005	0.008
1972	0.219	0.168
1973	0.172	0.012

1974	0.025	0.012
1975	0.079	0.016
1976	0.706	0.912
1977	0.010	0.012
1978	0.001	0.009
1979	0.008	0.012
1980	0.024	0.008
1981	0.014	0.014
1982	0.045	0.010
1983	0.149	0.016
1984	0.001	0.013
1985	0.037	0.014
1986	0.014	0.009
1987	0.059	0.015
1988	0.018	0.013
1989	0.030	0.011
1990	0.017	0.011
1991	0.154	0.016
1992	0.181	0.238
1993	0.054	0.011
1994	0.022	0.009
1995	0.005	0.008
1996	0.000	0.010
1997	0.008	0.010
1998	0.410	0.015
1999	0.155	0.010
2000	0.024	0.010

Ranked Yearly Peaks for Predeveloped and Mitigated. POC #1

Rank	**Predeveloped**	**Mitigated**
1	0.7058	0.9115
2	0.4095	0.2383
3	0.2195	0.1684
4	0.2013	0.0165
5	0.1810	0.0164
6	0.1721	0.0164
7	0.1588	0.0160
8	0.1548	0.0157
9	0.1536	0.0151
10	0.1494	0.0149
11	0.1386	0.0148
12	0.0939	0.0147
13	0.0904	0.0146
14	0.0901	0.0142
15	0.0822	0.0138
16	0.0795	0.0137
17	0.0794	0.0136
18	0.0588	0.0134
19	0.0539	0.0131
20	0.0528	0.0128
21	0.0452	0.0125
22	0.0382	0.0124
23	0.0367	0.0123
24	0.0365	0.0123
25	0.0349	0.0121
26	0.0329	0.0120

27	0.0301	0.0117
28	0.0275	0.0115
29	0.0270	0.0114
30	0.0265	0.0112
31	0.0249	0.0108
32	0.0242	0.0107
33	0.0240	0.0107
34	0.0223	0.0106
35	0.0176	0.0105
36	0.0174	0.0104
37	0.0165	0.0101
38	0.0139	0.0098
39	0.0135	0.0097
40	0.0104	0.0096
41	0.0084	0.0096
42	0.0080	0.0095
43	0.0077	0.0094
44	0.0056	0.0092
45	0.0052	0.0088
46	0.0051	0.0088
47	0.0013	0.0086
48	0.0007	0.0085
49	0.0006	0.0083
50	0.0005	0.0082
51	0.0005	0.0080

POC #1
The Facility PASSED

The Facility PASSED.

Flow(CFS)	Predev	Dev	Percentage	Pass/Fail
0.0168	1117	971	86	Pass
0.0218	732	251	34	Pass
0.0268	569	211	37	Pass
0.0318	468	181	38	Pass
0.0368	393	164	41	Pass
0.0417	342	143	41	Pass
0.0467	298	132	44	Pass
0.0517	272	123	45	Pass
0.0567	235	111	47	Pass
0.0617	207	106	51	Pass
0.0667	192	99	51	Pass
0.0717	163	94	57	Pass
0.0767	144	83	57	Pass
0.0817	121	76	62	Pass
0.0867	107	71	66	Pass
0.0917	97	67	69	Pass
0.0967	93	63	67	Pass
0.1017	77	57	74	Pass
0.1067	70	53	75	Pass
0.1117	64	47	73	Pass
0.1167	60	44	73	Pass
0.1217	56	43	76	Pass
0.1267	49	40	81	Pass
0.1317	46	39	84	Pass

0.1367	40	36	90	Pass
0.1417	37	33	89	Pass
0.1467	34	32	94	Pass
0.1517	29	29	100	Pass
0.1567	26	27	103	Pass
0.1617	25	25	100	Pass
0.1667	24	24	100	Pass
0.1717	23	22	95	Pass
0.1767	21	20	95	Pass
0.1817	20	20	100	Pass
0.1867	18	19	105	Pass
0.1917	17	18	105	Pass
0.1967	16	17	106	Pass
0.2017	16	16	100	Pass
0.2066	15	15	100	Pass
0.2116	14	15	107	Pass
0.2166	14	15	107	Pass
0.2216	13	14	107	Pass
0.2266	13	12	92	Pass
0.2316	13	11	84	Pass
0.2366	13	9	69	Pass
0.2416	13	7	53	Pass
0.2466	12	7	58	Pass
0.2516	12	7	58	Pass
0.2566	12	6	50	Pass
0.2616	12	6	50	Pass
0.2666	12	6	50	Pass
0.2716	12	6	50	Pass
0.2766	12	6	50	Pass
0.2816	12	6	50	Pass
0.2866	10	6	60	Pass
0.2916	10	5	50	Pass
0.2966	10	5	50	Pass
0.3016	10	5	50	Pass
0.3066	10	5	50	Pass
0.3116	10	5	50	Pass
0.3166	10	5	50	Pass
0.3216	10	5	50	Pass
0.3266	10	5	50	Pass
0.3316	10	5	50	Pass
0.3366	10	5	50	Pass
0.3416	10	5	50	Pass
0.3466	10	5	50	Pass
0.3516	9	5	55	Pass
0.3566	9	5	55	Pass
0.3616	9	5	55	Pass
0.3666	9	5	55	Pass
0.3715	9	5	55	Pass
0.3765	8	5	62	Pass
0.3815	8	5	62	Pass
0.3865	8	5	62	Pass
0.3915	8	4	50	Pass
0.3965	8	4	50	Pass
0.4015	7	4	57	Pass
0.4065	7	4	57	Pass
0.4115	6	4	66	Pass
0.4165	5	4	80	Pass

0.4215	5	4	80	Pass
0.4265	4	4	100	Pass
0.4315	4	4	100	Pass
0.4365	4	4	100	Pass
0.4415	3	3	100	Pass
0.4465	3	3	100	Pass
0.4515	3	3	100	Pass
0.4565	3	3	100	Pass
0.4615	3	3	100	Pass
0.4665	3	3	100	Pass
0.4715	3	3	100	Pass
0.4765	3	3	100	Pass
0.4815	3	3	100	Pass
0.4865	3	3	100	Pass
0.4915	3	3	100	Pass
0.4965	3	3	100	Pass
0.5015	3	3	100	Pass
0.5065	3	3	100	Pass
0.5115	3	3	100	Pass

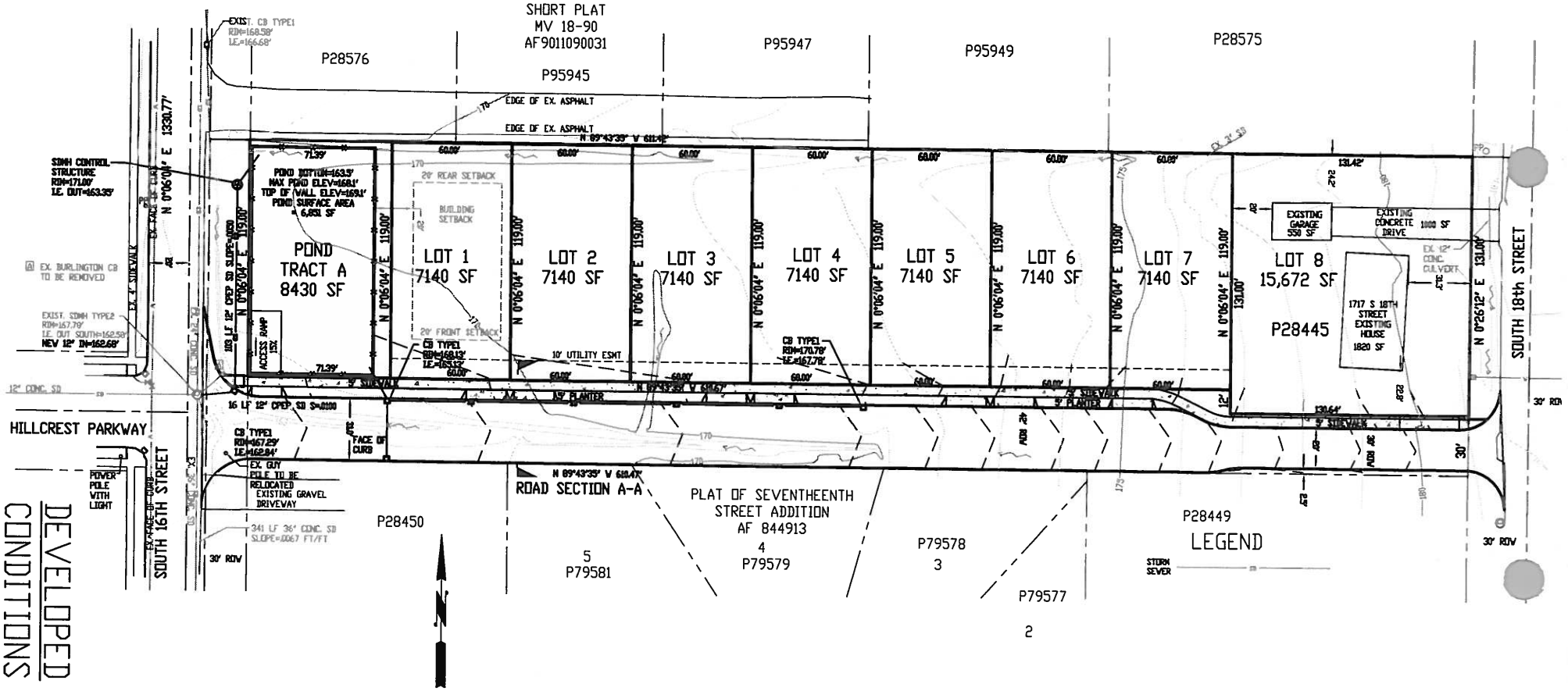
Water Quality BMP Flow and Volume for POC 1.
On-line facility volume: 0.137 acre-feet
On-line facility target flow: 0.01 **cfs.**
Adjusted for 15 min: 0.2012 **cfs.**
Off-line facility target flow: 0.1004 **cfs.**
Adjusted for 15 min: 0.1135 **cfs.**

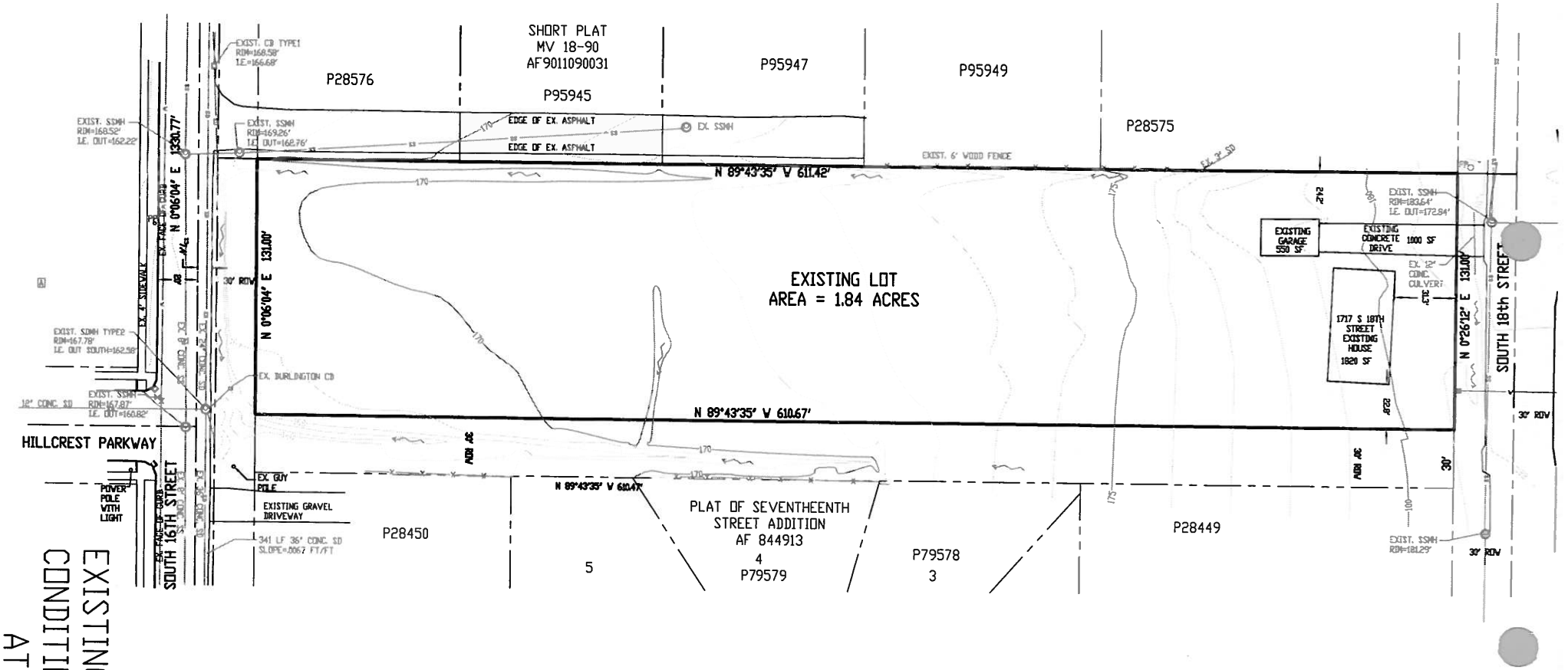
Perlnd and Implnd Changes

No changes have been made.

ATTACHMENT A

DEVELOPED CONDITIONS

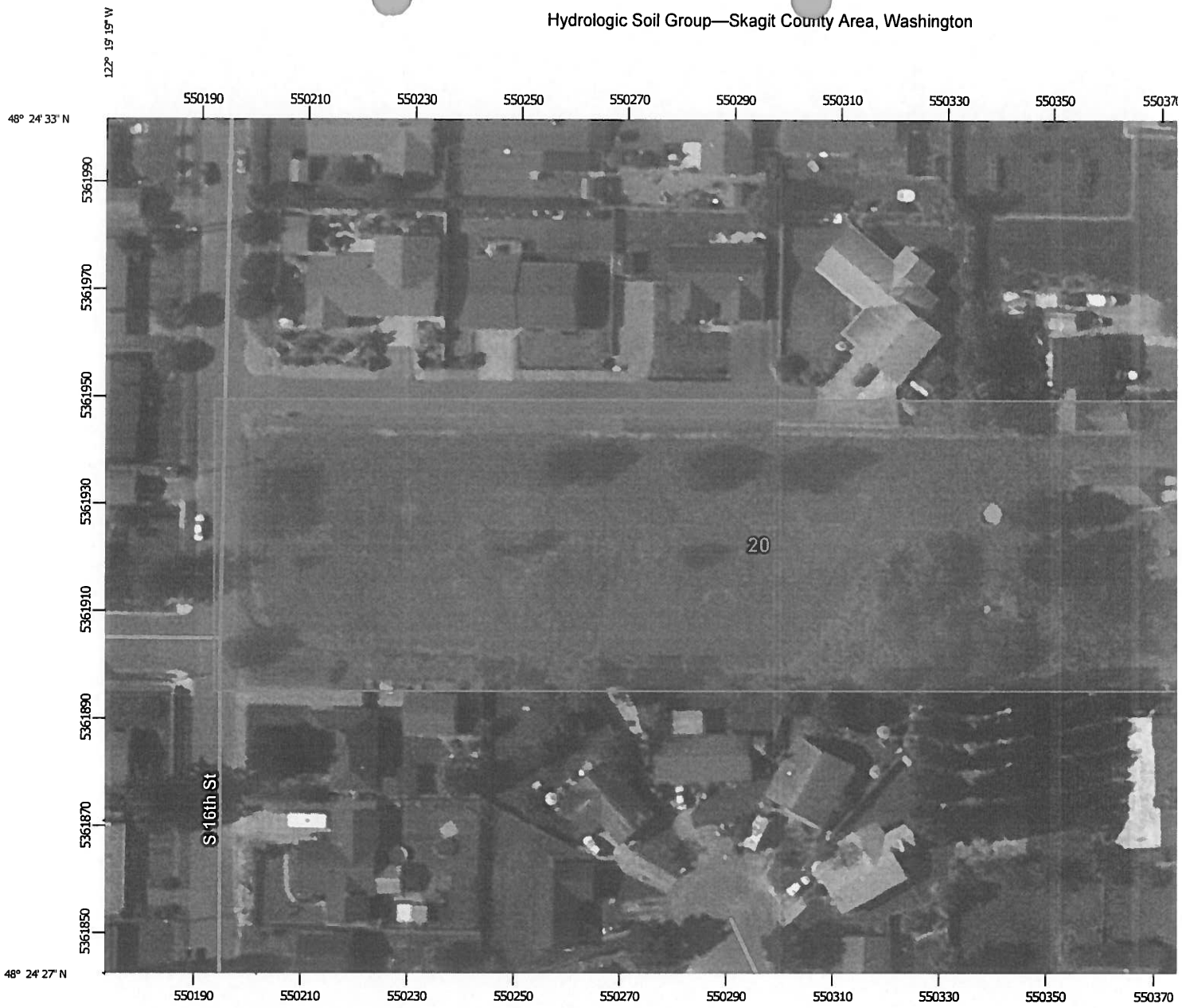




EXISTING CONDITIONS

ATTACHMENT B

Hydrologic Soil Group—Skagit County Area, Washington



Map Scale: 1:1,120 if printed on A landscape (11" x 8.5") sheet.

N

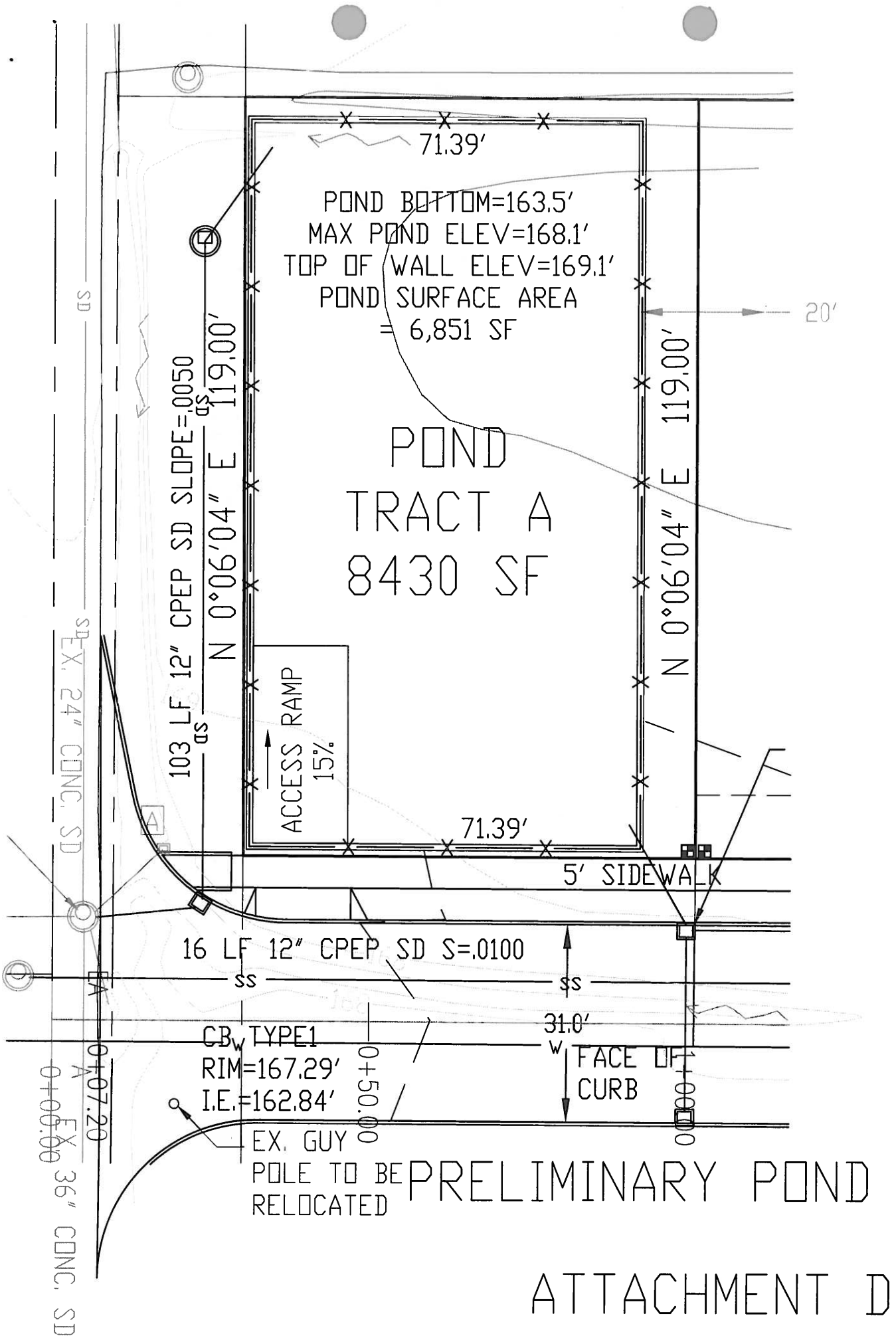
Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey



PRELIMINARY POND

ATTACHMENT D

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Skagit County Area, Washington (WA657)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
20	Bow-Urban land complex, 0 to 8 percent slopes	C/D	2.8	100.0%
Totals for Area of Interest			**2.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*